

requests to a base station. *Id.* The Office Action then asserts that it would have been obvious to one of ordinary skill in the art “to apply a method and system for dividing a reservation channel into a plurality of mini-slots wherein each mini-slot assigned to each mobile unit and the number of mini-slots are equal to the number of mobile units as disclosed by Sardana’s system and method into Kashi’s system and method,” the motivation of which “would have been to reduce [collisions] and improve the throughput of the system.” *Id.* Applicant respectfully disagrees and traverses this rejection on the following grounds.

First and foremost, the combination of Kashi and Sardana fails to disclose or suggest all the limitations recited in independent claims 1, 32, 55, 68, 69, and 76. In order to establish a *prima facie* case of obviousness, three basic criteria must be met:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant’s disclosure. MPEP § 2143 (citing *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991)).

Applicant maintains that Kashi, either taken alone or in combination with Sardana, does not disclose or suggest at least the claim limitation of “said clear channel assessment interval is partitioned into periods of time and each of said periods of time is assigned to one of said plurality of remote stations” as recited or similarly recited in independent claims 1, 32, 55, 68, 69, and 76. Particularly, Sardana does not teach or suggest this limitation as the Office Action contends. Sardana discloses a reservation protocol having a number of reservation minislots, each of which is assigned to a particular station of a network. Sardana, col. 3, ll. 5-10. Each station is required to transmit a reservation request during its allocated minislot in a reservation interval in order to reserve time for the transmission of information during a communication interval. *Id.*, col. 3, ll. 11-13. However, Sardana’s reservation interval and protocol is not equivalent nor even similar to the “clear channel assessment interval” as claimed. Specifically, the clear channel assessment interval of the present invention allocates an assigned time, during which a remote station monitors a reverse channel to determine if any other remote stations are

transmitting. For example, claim 1 recites “each remote station ... monitors a reverse channel within an assigned period of time in a clear channel assessment interval” To the contrary, Sardana’s reservation interval allocates an assigned time, during which a station transmits a reservation request. Hence, the stations in Sardana are transmitting rather than monitoring during the assigned time in the reservation channel. Accordingly, Sardana does not disclose a partitioned clear channel assessment interval as claimed and missing from Kashi. Therefore, the Office Action has failed to establish a *prima facie* case of obviousness and the instant rejection is unsustainable.

Second, the Office Action further fails to present a convincing line of reasoning as why to one of ordinary skill in the art would have found the claimed invention obvious. MPEP § 2142 states:

To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 USPQ 972 (Bd. Pat. App. & Inter. 1985) (Emphasis added).

Applicant maintains that neither of the cited references expressly or impliedly suggest incorporating a reservation protocol into Kashi as asserted by the Office Action.¹ Moreover, Applicant respectfully contends that the Examiner’s postulated motivation to combine the cited references in order “to reduce [collisions] and improve the throughput of the system” is erroneous. Particularly, addition of Sardana’s reservation protocol does not reduce the number collisions, i.e., interference, of Kashi’s system as its inclusion would be redundant to the priority/polling allocation method already provided for by Kashi. Kashi discloses the use of complicated priority calculations² to allocate transmission time periods, during which a particular station can transmit under optimal conditions information without interference from other stations. Therefore, inclusion of Sardana’s reservation protocol would not reduce transmission interference as Kashi has already eliminated such. More importantly, incorporating a reservation protocol into Kashi would have a negative impact on the overall throughput of the system.

¹ The Office Action does not provide any evidence to support the contrary.

² Applicant has discussed Kashi’s system in detail in previous responses.

Sardana requires that the base station have a global queue and extra processing capability in order to handle the reservation requests and allocation of transmission time intervals. Sardana, col. 3, ll. 13-17. Each and every station receives requesting information from other stations and maintains such a global queue. *Id.*, col. 3, ll. 17-24. As such, precious time for transmitting information is wasted as each station must process additional overhead, or out-of-band signaling, in order to communicate during normal transmission, thereby reducing (as opposed to increasing or improving) the throughput of the system. Thus, Applicant maintains that there is no convincing reason for one of ordinary skill in the art to add Sardana's reservation protocol to Kashi's system.

Third, Kashi actually teaches away from making the Examiner's proposed modification. Particularly, Kashi states that channel time is a critical, valuable, and scarce resource in a radio communications system. Kashi, col. 1, ll. 55-61. Where there are many remote transmitting stations in a single system, large amounts of overhead transmissions should be avoided. *Id.*, col. 1, ll. 62-67. Inclusion of Sardana's reservation protocol in Kashi would create additional overhead and decrease communication channel time, which are two results Kashi clearly attempts to avoid.

For at least the reasons set forth above, Applicant maintains that the rejection of claims 1, 32, 55, 68, 69, and 76, and all claims dependent therefrom, is improper. Accordingly, the Examiner is respectfully requested to withdraw the instant rejection of claims 1-3, 5-7, 19, 24-25, 32-35, 40, 46, 50, 55-57, 61, 66, 68-71, 74, 76-77, and 80.

Claims 4, 8-18, 23, 26-31, 36-39, 41-45, 49-54, 58-60, 65, 67, 75, and 81 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Kashi and Sardana in further view of U.S. Patent No. 5,677,909 to Heide. Office Action, page 4, item 6. Heide is directed to a system for coordinating two-way exchanges via a central station. *See* Heide, abstract. Heide does not supply the deficiencies of the primary references discussed above. Applicant maintains that independent claims 1, 32, 55, 68, 69, and 76 are patentable over Kashi and Sardana in further view of Heide. Claims 4, 8-18, 23, 26-31, 36-39, 41-45, 49-54, 58-60, 65, 67, 75, and 81 are patentable as they depend from one of claims 1, 32, 55, 68, 69, and 76. Accordingly, the Examiner is respectfully requested to withdraw the instant rejection of these claims.

Claims 20-22, 47-48, and 64 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Kashi and Sardana in further view of U.S. Patent No. 5,299,198 to Kay. Kay is directed to a system for multiplexing plural voice traffic channels on a single carrier using a TDMA protocol. *See* Kay, abstract. Kay does not supply the deficiencies of the primary references discussed above. Applicant maintains that independent claims 1, 32, 55, 68, 69, and 76 are patentable over Kashi and Sardana in further view of Kay. Claims 20-22, 47-48, and 64 are patentable as they depend from one of claims 1, 32, and 55. Accordingly, the Examiner is respectfully requested to withdraw the instant rejection of these claims.

CONCLUSION

Applicant respectfully submits that this application is in condition for allowance, and such disposition is earnestly solicited. The appropriate fee for entry of this Response is submitted in a Request for Two-Month Extension of Time filed concurrently herewith and Applicant believes that no additional fee is required. Nevertheless, in the event that the U.S. Patent and Trademark Office requires a fee to enter this Response or to maintain the present application as pending, please charge such fee to the undersigned's Deposit Account No. 50-0206.

Respectfully submitted,
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Dated: February 20, 2003

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